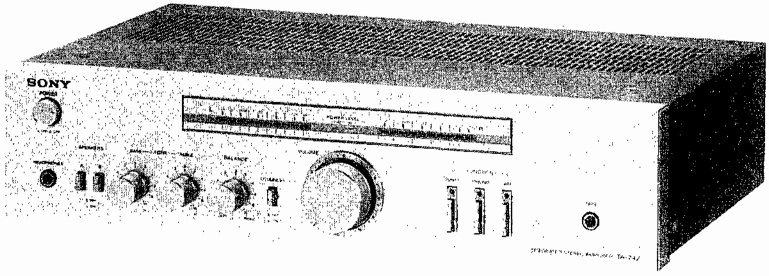
420

2206

TA-242

AEP Model
UK Model
E Model
US Model



INTEGRATED STEREO AMPLIFIER

[illegible]

COMPONENTS IDENTIFIED BY SHADING AND MARK ! ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR [illegible]

SPECIFICATIONS

GENERAL

System:	Direct output coupling, quasi-complementary symmetry power amplifier circuit (SEPP OTL)
Power Requirements:	US model: 120V ac,60 Hz UK model: 240V ac (or 220V ac adjustable by authorized Sony personnel), 50Hz AEP model: 220V ac (or 240V ac adjustable by authorized Sony personnel), 50Hz E model: 120, 220, or 240V ac adjustable, 50/60Hz
Power Consumption:	UK model: 130W AEP, E model: 110W US model: 75W
Ac Outlets (not provided for AEP model)	1 switched (100W), 2 unswitched (total 200W)
Dimensions:	Approx. 430x110x305mm (w/h/d) (17 x 4¼ x 12 inches) incl. projecting parts and controls
Weight:	Approx. 5.3kg (11 lb 11 oz) net Approx. 6.6kg (15 lb) in shipping carton

— Continued on next page —

SONY

SERVICE MANUAL

2206

POWER AMPLIFIER SECTION

Power Output and Total Harmonic Distortion: (US model)	With 8Ω loads, both channels driven, from 20 – 20,000 Hz; rated 22 watts per channel minimum RMS power, with no more than 0.08% total harmonic distortion from 250 mW to rated output.
Continuous RMS Power Output: (less than 0.08% THD, both channels driven simultaneously) **(AEP, UK, E model)**	At 1kHz 25 + 25W (8Ω) At 20Hz – 20kHz 22 + 22W (8Ω) According to DIN 45500 22 + 22W (8Ω)
Power Bandwidth (IHF):	15Hz – 35kHz (8Ω)
Harmonic Distortion:	Less than 0.08% at rated output (8Ω) Less than 0.05% at 1W output
Intermodulation (IM) Distortion: (60Hz: 7kHz = 4:1)	Less than 0.08% at rated output (8Ω) Less than 0.05% at 1W output
Frequency Response:	PHONO: RIAA equalization curve ±0.5dB TUNER, TAPE: 10Hz – 50kHz $^{+0}_{-3}$ dB
Damping Factor:	30 (8Ω, 1kHz)

Inputs:

	Sensitivity	Impedance	Maximum input capability (at 1kHz, 0.08% distortion)	S/N (weighting network)
PHONO	2.5mV	50kΩ	150mV	75dB (A)
	150mV	50kΩ	–	95dB (A)

Outputs:

REC OUT	Voltage 150mV, Impedance 10kΩ
HEADPHONES	Accepts low and high impedance headphones
SPEAKER	Accepts speakers of 8 – 16Ω

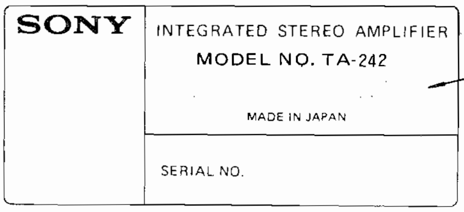
Tone Controls:	BASS ±8dB at 100Hz TREBLE ±8dB at 10kHz
Loudness (att. 30dB):	+8dB at 100Hz

0 dB = 0.775 V

◆ ◆ ◆

MODEL IDENTIFICATION

– Specification Label –



SONY

INTEGRATED STEREO AMPLIFIER

MODEL NO. TA-242

MADE IN JAPAN

SERIAL NO.

US model:	120 V	60 Hz	75W
UK model:	240 V ∿	50 Hz	130W
AEP model:	220 V ∿	50 Hz	110W
E1, E2 model:	120, 220, 240 V ∿	50/60 Hz	110W

SERVICING NOTE

MELF (Metal Electodes Face-Bonding) Components

Warning

If MELF components are forcibly removed from the printed circuit board with pincers or pliers, the circuit board pattern is likely to peel away. Always remove MELF components according to the procedure described on the next page. Replace MELF components with the lead type components.

MELF components are soldered directly to the surface of the printed circuit board.

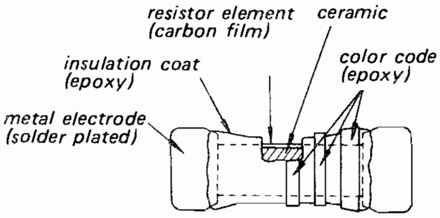
MELF resistors and capacitors have the same dimensions and are distinguished by their background colors: light brown for resistors, and pink or light green for capacitors.

The MELF resistor color coding is the same as for conventional resistors, and MELF capacitor color coding is the same as for tube-type ceramic capacitors. Note, however, that all MELF resistors are rated at ¼W and ±5%.

Components larger than resistors and without a color code are cross conductors, which are used instead of jumper wires.

1. Structure

(Resistors)


resistor element (carbon film)
ceramic
insulation coat (epoxy)
color code (epoxy)
metal electrode (solder plated)

(Capacitors)

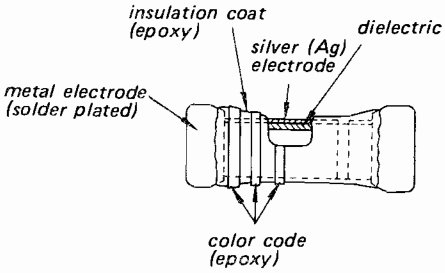
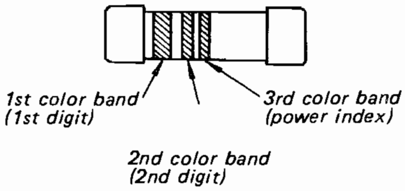
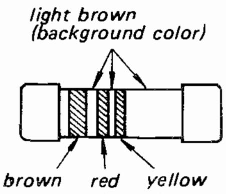

insulation coat (epoxy)
dielectric
silver (Ag) electrode
metal electrode (solder plated)
color code (epoxy)

Fig. 1

2. Color Code Reading


1st color band (1st digit)
3rd color band (power index)
2nd color band (2nd digit)

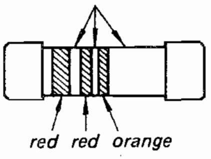
(Example of Resistor)


light brown (background color)
brown
red
yellow

1 2 $10^4 \Rightarrow 12 \times 10^4\,\Omega = 120000\,\Omega$
$= 120\,k\Omega$

(Example of Capacitor)

background color { *pink* ....*25 V voltage resistance*
light green ....*50 V voltage resistance*


red
red
orange

2 2 $10^3 \Rightarrow 22 \times 10^3\,pF = 22000\,pF$
$= 0.022\,\mu F$

Fig. 2

3. How to Remove MELF Components and Mount Replacements

Use a soldering iron of at least 40W with an iron tip 4 mm in diameter and file the tip down to the angle shown in the diagram.

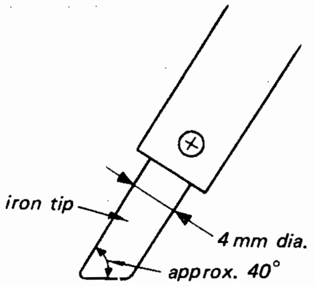

iron tip
4 mm dia.
approx. 40°

Fig. 3

1. Bring the flat surface of the soldering iron in equal contact with both soldered ends of the component.
2. The solder should melt in about 4 seconds. (The solder will melt more readily if a small amount of solder is attached to the iron tip and the iron tip is placed against the component.)
3. Once the solder has melted, tap the component aside with the tip of the soldering iron, and remove it from the board.

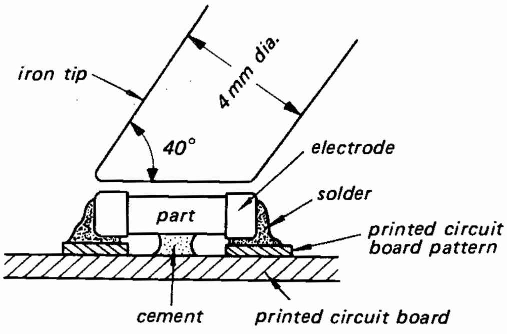

iron tip
4 mm dia.
40°
electrode
solder
part
printed circuit board pattern
cement
printed circuit board

Fig. 4

4. Use lead type resistors or capacitors to replace the MELF components. These replacements may be mounted either with short leads (see Fig. 5), or by covering a lead with tubing (see Fig. 6).

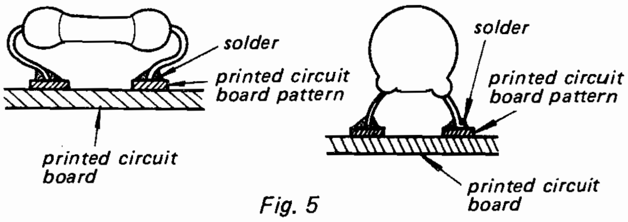

solder
printed circuit board pattern
printed circuit board
solder
printed circuit board pattern
printed circuit board

Fig. 5

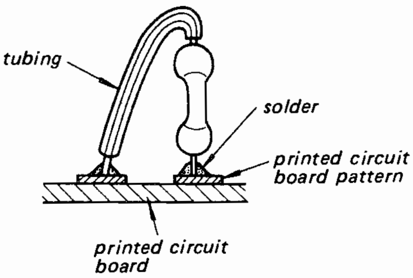
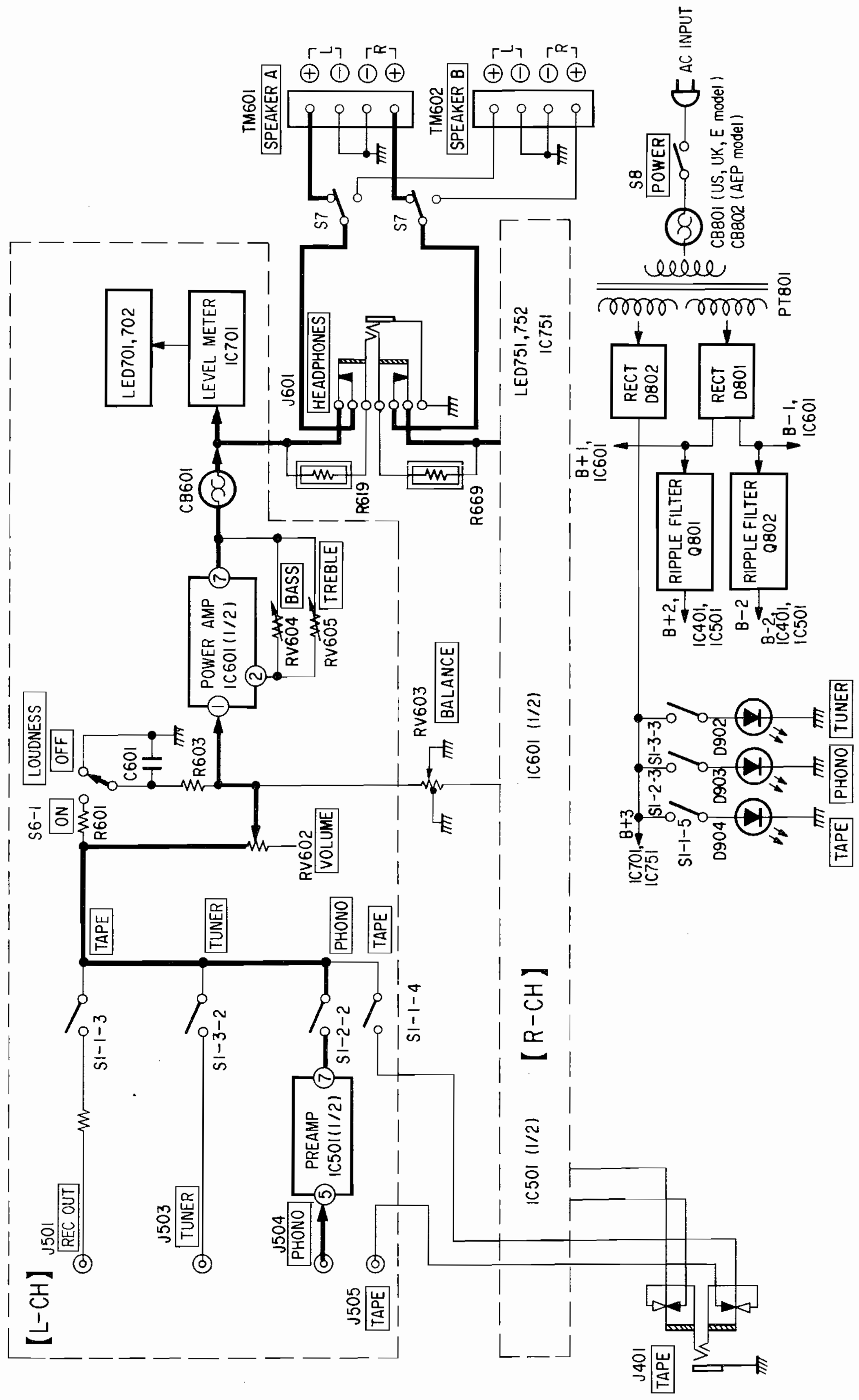

tubing
solder
printed circuit board pattern
printed circuit board

Fig. 6

SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM


TM601 SPEAKER A
TM602 SPEAKER B
L R
AC INPUT
S8 POWER
CB801 (US, UK, E model)
CB802 (AEP model)
PT801
S7
J601 HEADPHONES
LED701,702
LEVEL METER IC701
LED751,752 IC751
RECT D802
RECT D801
B+1, IC601
B−1, IC601
RIPPLE FILTER Q801
RIPPLE FILTER Q802
B+2, IC401, IC501
B−2, IC401, IC501
CB601
R619
R669
POWER AMP IC601 (1/2)
RV604 BASS
RV605 TREBLE
RV603 BALANCE
IC601 (1/2)
S6-1 LOUDNESS OFF ON
C601
R603
R601
RV602 VOLUME
S1-3-3
S1-2-3
S1-1-5
D902 TUNER
D903 PHONO
D904 TAPE
B+3 IC701, IC751
TAPE
TUNER
PHONO
TAPE
S1-1-3
S1-3-2
S1-2-2
S1-1-4
PREAMP IC501 (1/2)
IC501 (1/2)
【R-CH】
J501 REC OUT
J503 TUNER
J504 PHONO
J505 TAPE
【L-CH】
J401 TAPE

SECTION 2
DISASSEMBLY

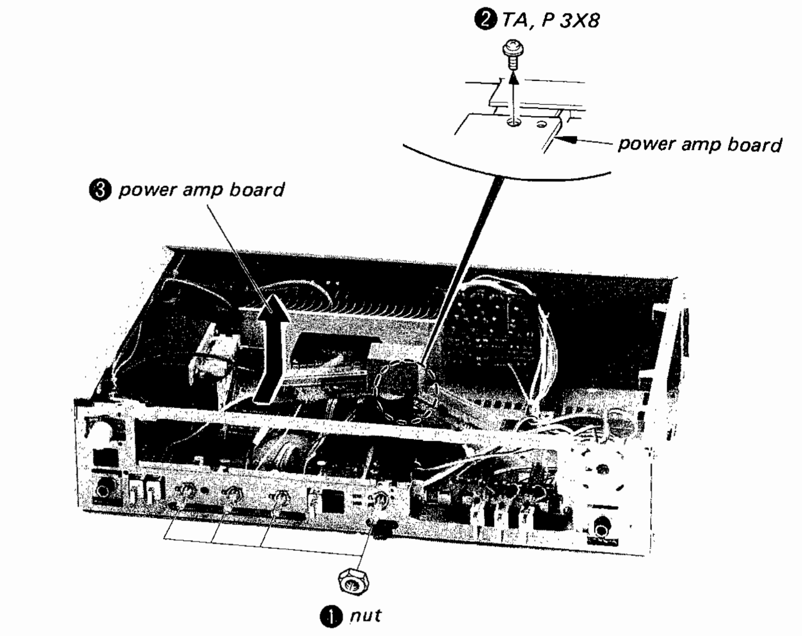
2-1. REMOVAL

Note: Follow the disassembly procedure in the numerical order given.

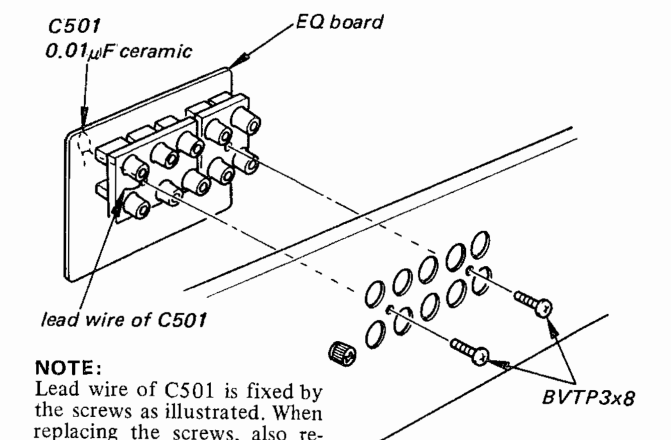
TOP COVER ASS'Y

Remove the top cover by removing 4 top cover screws.

POWER AMP BOARD

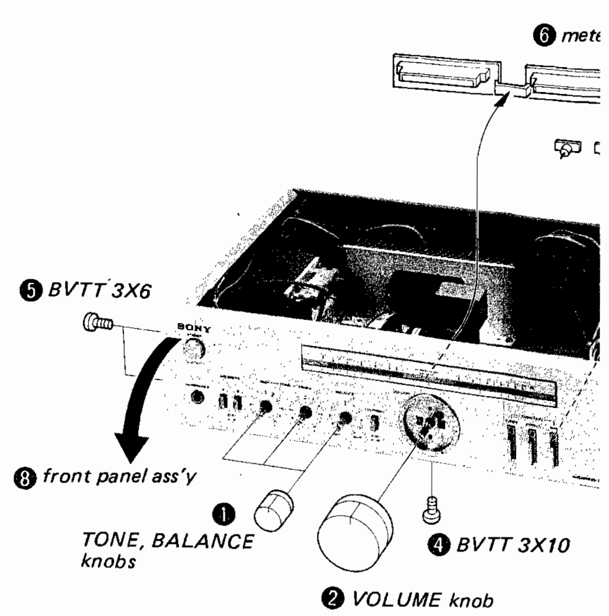

❷ TA, P 3X8
power amp board
❸ power amp board
❶ nut

EQ BOARD

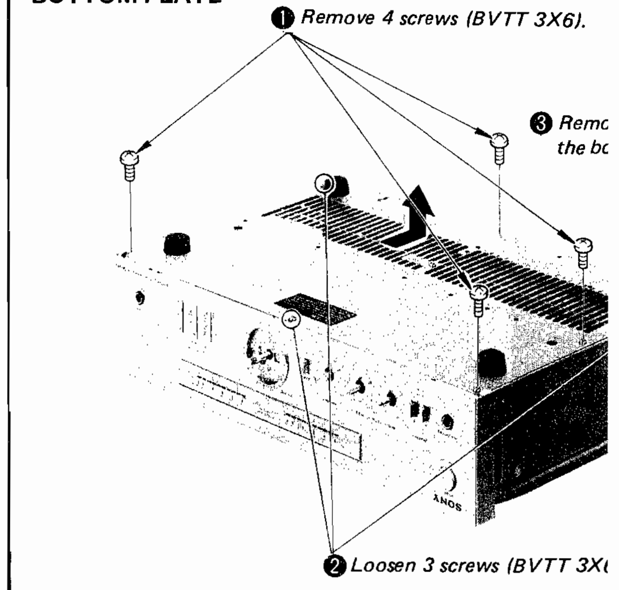

C501
0.01μF ceramic
EQ board
lead wire of C501
BVTP3x8

NOTE:
Lead wire of C501 is fixed by the screws as illustrated. When replacing the screws, also replace C501 as lead wire of C501 will be broken by loosening the screws. Connecting C501 to other grounding part may cause ham.

FRONT PANEL ASS'Y


❻ mete
❺ BVTT 3X6
SONY
❽ front panel ass'y
❶ TONE, BALANCE knobs
❹ BVTT 3X10
❷ VOLUME knob

BOTTOM PLATE


❶ Remove 4 screws (BVTT 3X6).
❸ Remo
the bo
SONY
❷ Loosen 3 screws (BVTT 3X

SECTION 2
DISASSEMBLY

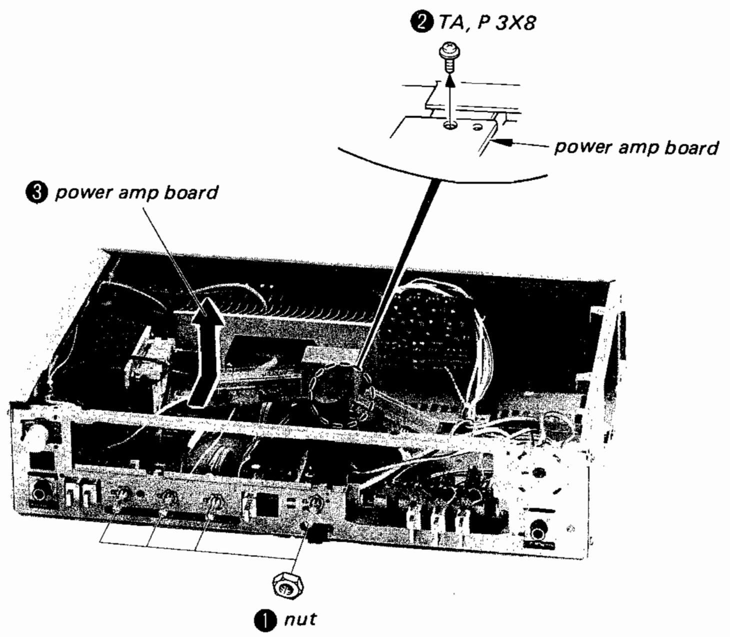
2-1. REMOVAL

Note: Follow the disassembly procedure in the numerical order given.

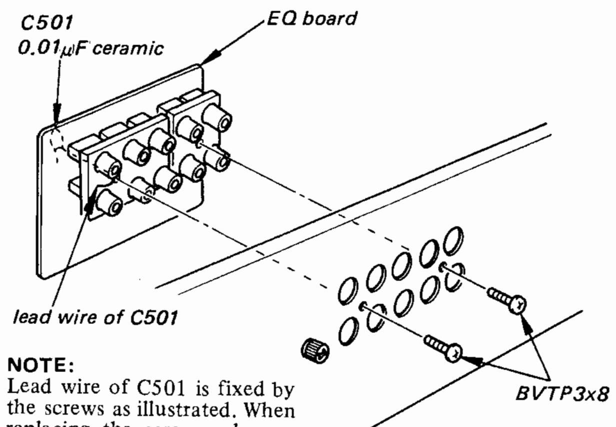
TOP COVER ASS'Y

Remove the top cover by removing 4 top cover screws.

POWER AMP BOARD

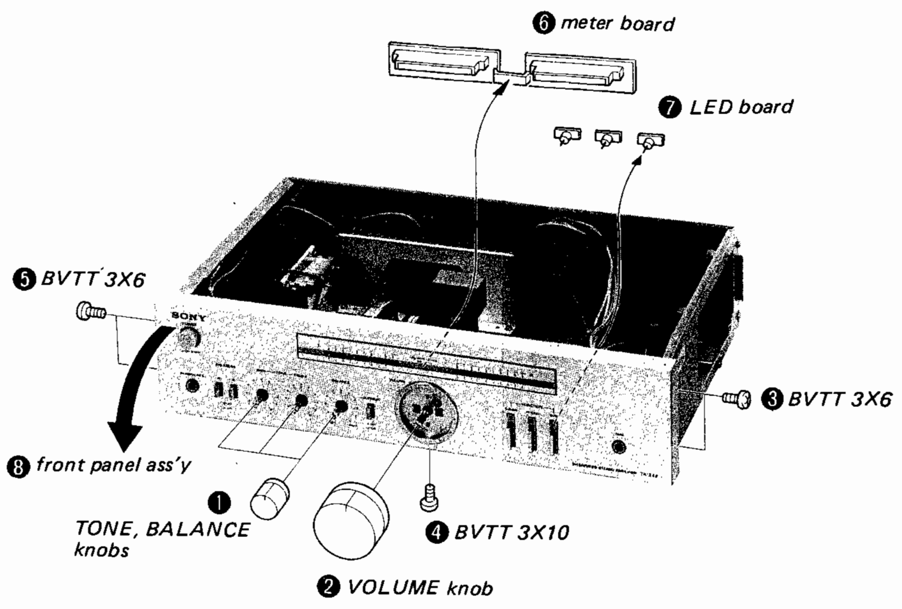

❷ TA, P 3X8
power amp board
❸ power amp board
❶ nut

EQ BOARD

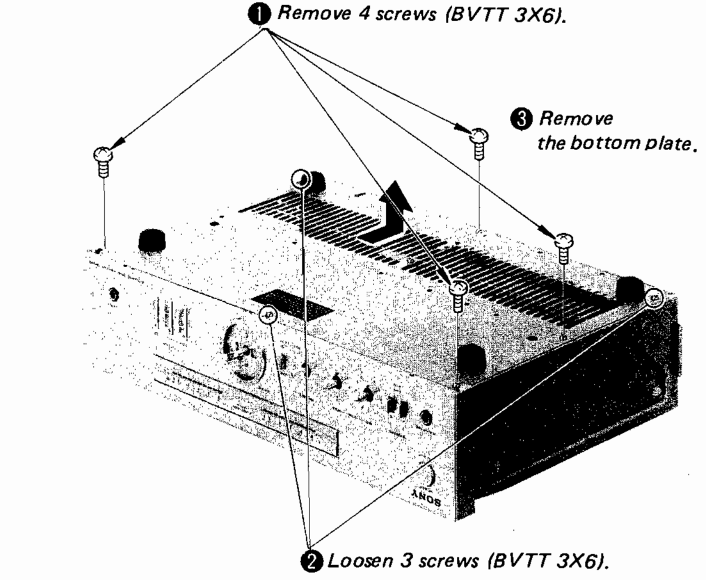

C501
0.01μF ceramic
EQ board
lead wire of C501
BVTP3x8

NOTE:
Lead wire of C501 is fixed by the screws as illustrated. When replacing the screws, also replace C501 as lead wire of C501 will be broken by loosening the screws. Connecting C501 to other grounding part may cause ham.

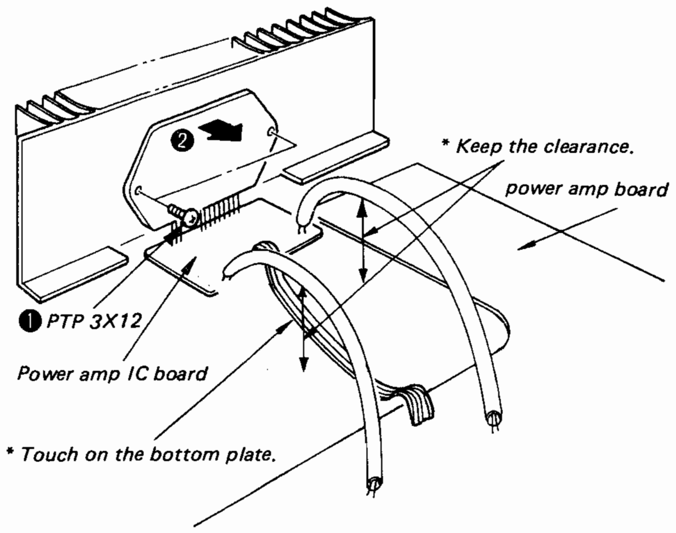
FRONT PANEL ASS'Y


❻ meter board
❼ LED board
❺ BVTT 3X6
❸ BVTT 3X6
❽ front panel ass'y
❶ TONE, BALANCE knobs
❹ BVTT 3X10
❷ VOLUME knob

BOTTOM PLATE

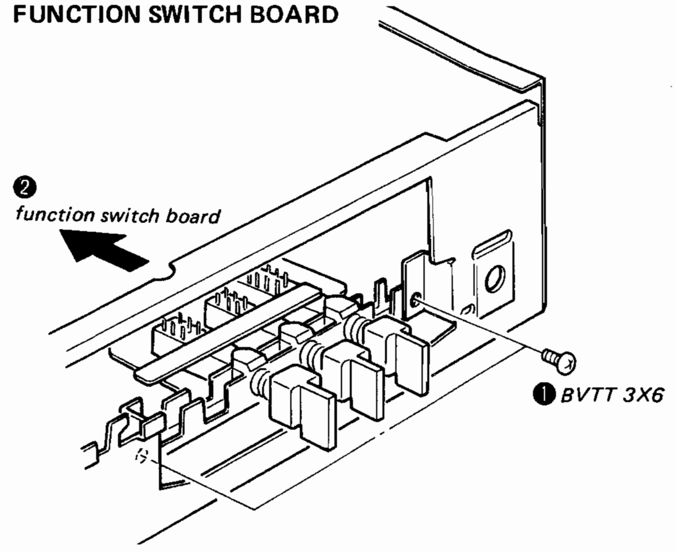

❶ Remove 4 screws (BVTT 3X6).
❸ Remove the bottom plate.
❷ Loosen 3 screws (BVTT 3X6).

POWER AMP IC BOARD


❷
* Keep the clearance.
power amp board
❶ PTP 3X12
Power amp IC board
* Touch on the bottom plate.

* NOTE ON LEAD WIRE SETTING
Make sure to set the lead wires as shown above for better S/N ratio.

FUNCTION SWITCH BOARD


❷ function switch board
❶ BVTT 3X6

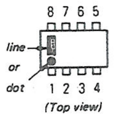
SECTION 3
DIAGRAMS

3-1. MOUNTING DIAGRAM
— Conductor Side —

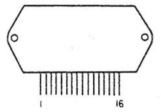
Replacement Semiconductors

For replacement, use semiconductors except in ( )

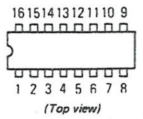
IC501 : NJM4560D-D (NJM4560)


8 7 6 5
line
or
dot
1 2 3 4
(Top view)

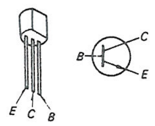
IC601 : STK460



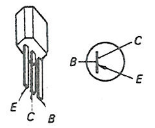
IC701, 751 : LB1405


16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
(Top view)

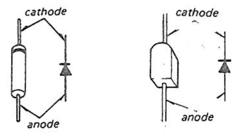
Q801 : 2SC1364 (2SC1815)



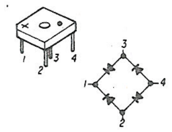
Q802 : 2SA1027R (2SA1015)



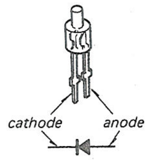
D701, 751 : 1S1555
D802 : 10E2 (RA-1Z)


cathode
anode
cathode
anode

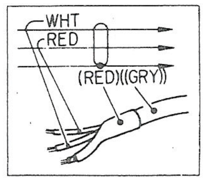
D801 : S2VB20



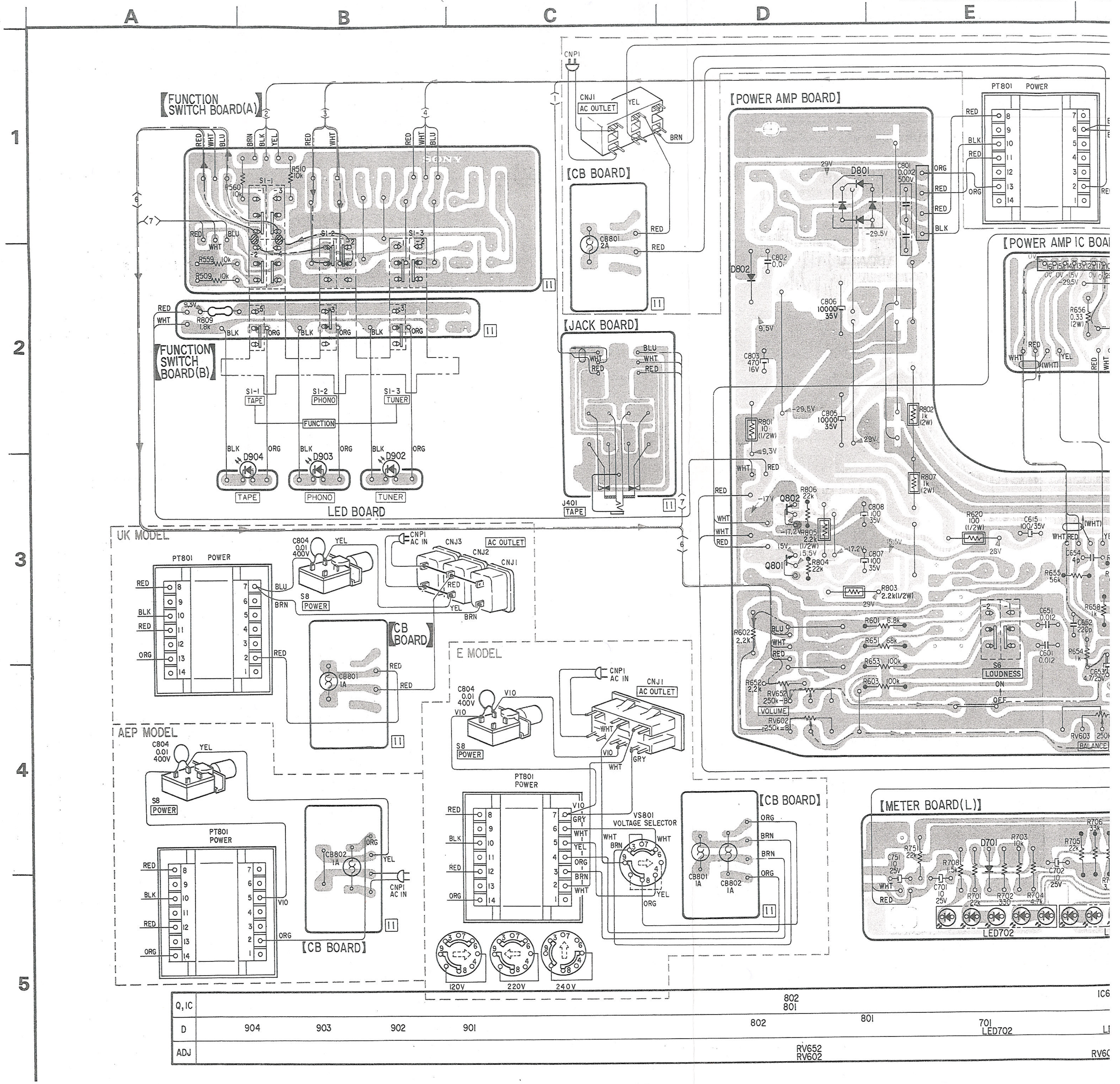
D902~904 : SLP144B

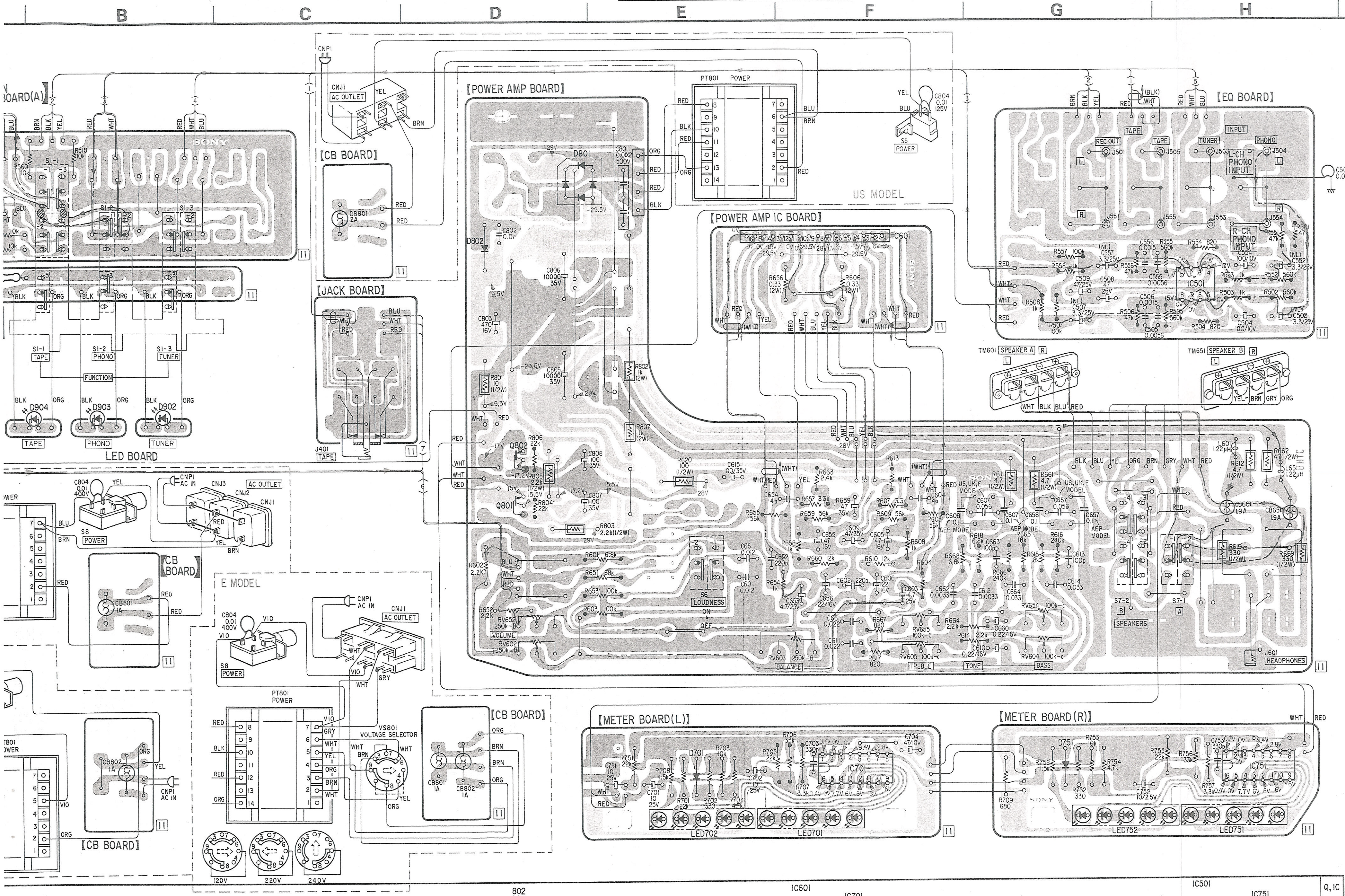

cathode
anode

- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)(GRY)

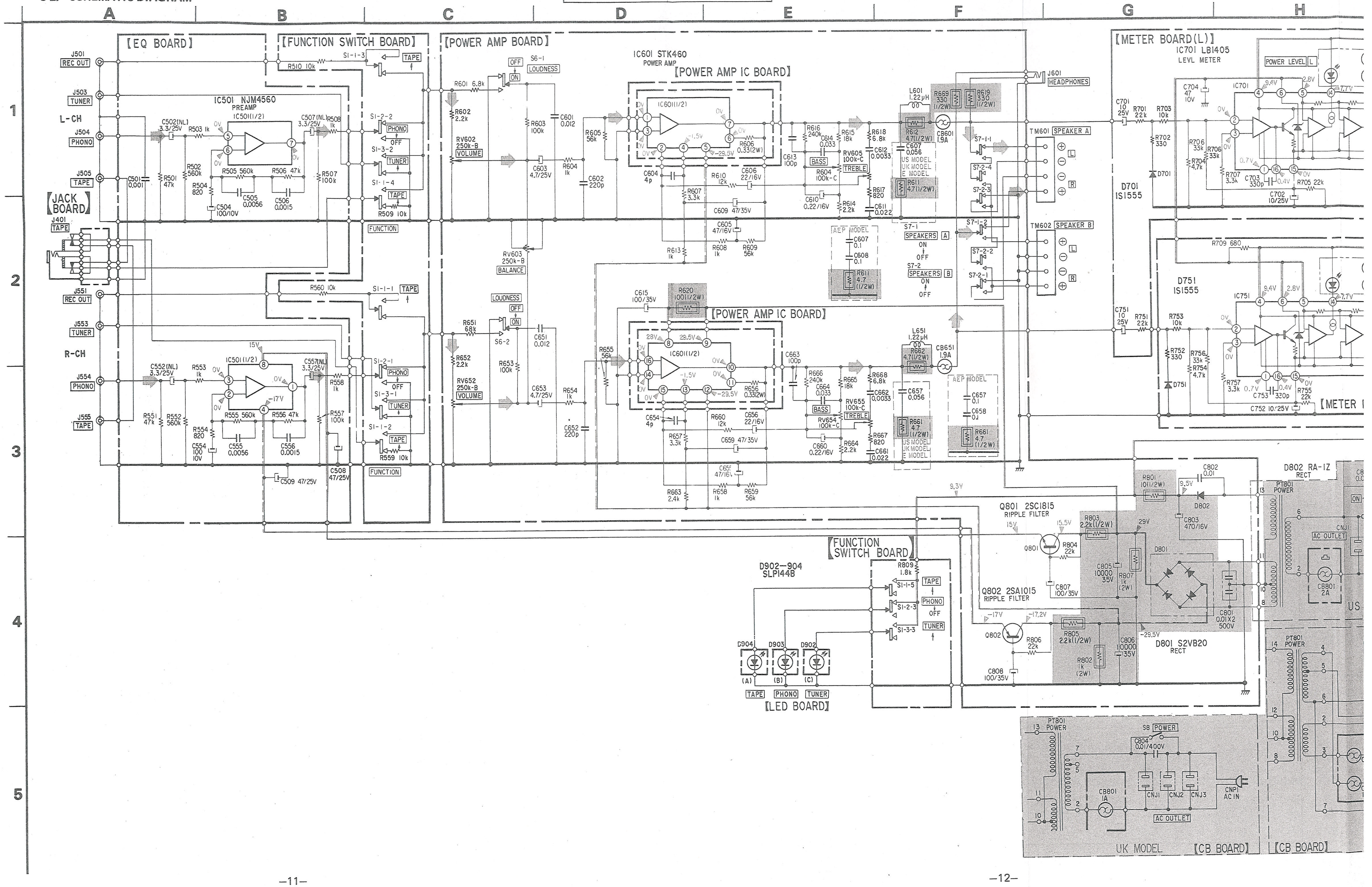
- ■ : part mounted on the conductor side.
- [ ]← : indicates side identified with part number.
- ▨ : B+ pattern
- ▨ : B- pattern
- ▬▬▶ : L-CH signal path
- ▬▬▶ : R-CH signal path
- -ww- : MELF components

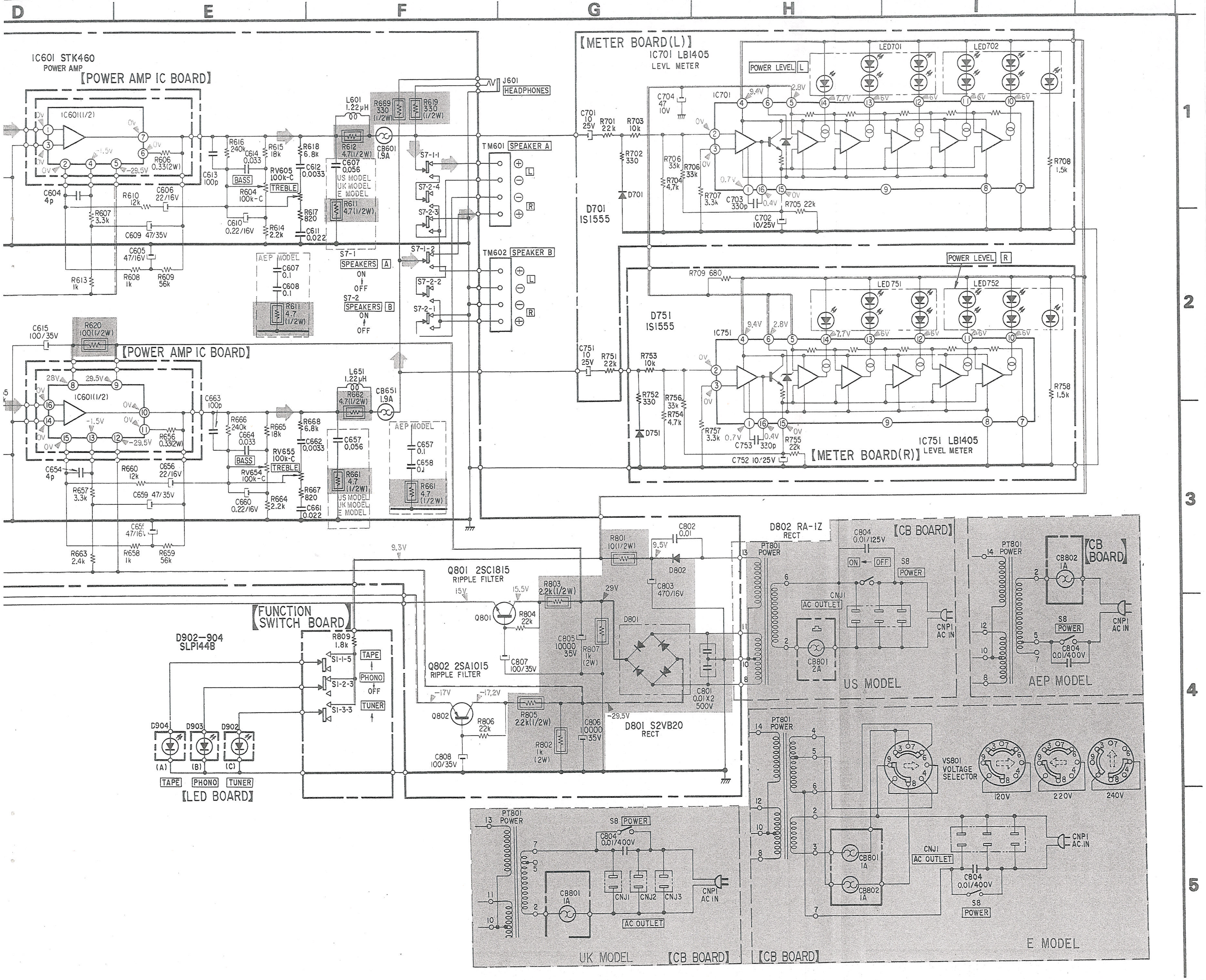

A
B
C
D
E
1
2
3
4
5
FUNCTION SWITCH BOARD(A)
FUNCTION SWITCH BOARD(B)
S1-1 TAPE
S1-2 PHONO
S1-3 TUNER
FUNCTION
D904 TAPE
D903 PHONO
D902 TUNER
LED BOARD
CB BOARD
CB801 2A
JACK BOARD
J401 TAPE
POWER AMP BOARD
POWER AMP IC BOARD
PT801 POWER
CNJ1 AC OUTLET
CNP1
D801
D802
Q801
Q802
S6 LOUDNESS
ON
OFF
RV652 250k-B
VOLUME
RV602 250k-B
RV603
BALANCE
METER BOARD(L)
LED702
UK MODEL
CNP1 AC IN
CNJ3
CNJ2
AC OUTLET
S8 POWER
C804 0.01 400V
AEP MODEL
CB802 1A
E MODEL
VS801 VOLTAGE SELECTOR
120V
220V
240V
Q,IC
D
ADJ
802
801
IC6
904
903
902
901
802
801
701
LED702
RV652
RV602
RV6


B
C
D
E
F
G
H
BOARD(A)
LED BOARD
[CB BOARD]
[JACK BOARD]
[POWER AMP BOARD]
PT801 POWER
US MODEL
[POWER AMP IC BOARD]
[EQ BOARD]
TM601 SPEAKER A
TM651 SPEAKER B
E MODEL
PT801 POWER
VS801 VOLTAGE SELECTOR
[METER BOARD(L)]
[METER BOARD(R)]
LED702
LED701
LED752
LED751
S1-1 TAPE
S1-2 PHONO
S1-3 TUNER
FUNCTION
D904
D903
D902
TAPE
PHONO
TUNER
CNP1 AC IN
CNJ1 AC OUTLET
S8 POWER
CB801 2A
CB801 1A
CB802 1A
J401 TAPE
IC601
IC501
IC701
IC751
D801
D802
Q801
Q802
VOLUME
BALANCE
LOUDNESS
TREBLE
TONE
BASS
SPEAKERS
HEADPHONES
REC OUT
TAPE
TUNER
PHONO
INPUT
L-CH PHONO INPUT
R-CH PHONO INPUT
120V
220V
240V

	B	C	D	E	F	G	H	
			802 801		IC601 IC701		IC501 IC751	Q, IC
	904 903 902	901	802 801	701 LED702	LED701	751 LED752	LED751	D
			RV652 RV602		RV603 RV653 RV605	RV654 RV604		ADJ

3-2. SCHEMATIC DIAGRAM


A
B
C
D
E
F
G
H
1
2
3
4
5
【EQ BOARD】
【FUNCTION SWITCH BOARD】
【POWER AMP BOARD】
【POWER AMP IC BOARD】
【METER BOARD(L)】
【JACK BOARD】
【LED BOARD】
【CB BOARD】
UK MODEL
US MODEL
UK MODEL
E MODEL
AEP MODEL
J501 REC OUT
J503 TUNER
L-CH
J504 PHONO
J505 TAPE
J401 TAPE
J551 REC OUT
J553 TUNER
R-CH
J554 PHONO
J555 TAPE
IC501 NJM4560 PREAMP
IC501(1/2)
IC601 STK460 POWER AMP
IC601(1/2)
IC701 LB1405 LEVL METER
IC751
POWER LEVEL L
S1-1-3 TAPE
S1-2-2 PHONO OFF
S1-3-2 TUNER
S1-1-4 TAPE
FUNCTION
S1-1-1 TAPE
S1-2-1 PHONO OFF
S1-3-1 TUNER
S1-1-2 TAPE
S6-1 OFF ON LOUDNESS
S6-2 LOUDNESS OFF ON
RV602 250k-B VOLUME
RV652 250k-B VOLUME
RV603 250k-B BALANCE
RV604 100k-C BASS
RV605 100k-C TREBLE
RV654 100k-C BASS
RV655 100k-C TREBLE
L601 1.22μH
L651 1.22μH
CB601 1.9A
CB651 1.9A
J601 HEADPHONES
TM601 SPEAKER A
TM602 SPEAKER B
S7-1 SPEAKERS A ON OFF
S7-2 SPEAKERS B ON OFF
S7-1-1
S7-2-4
S7-2-3
S7-1-2
S7-2-2
S7-2-1
D701 1S1555
D751 1S1555
D802 RA-1Z RECT
PT801 POWER
Q801 2SC1815 RIPPLE FILTER
Q802 2SA1015 RIPPLE FILTER
D801 S2VB20 RECT
C801 0.01×2 500V
CB801 2A
CB801 1A
AC OUTLET
CNJ1
CNJ2
CNJ3
CNP1 AC IN
S8 POWER
C804 0.01/400V
D902–904 SLP144B
D904 (A) TAPE
D903 (B) PHONO
D902 (C) TUNER
S1-1-5 TAPE
S1-2-3 PHONO OFF
S1-3-3 TUNER
R809 1.8k
R510 10k
R560 10k
R509 10k
R559 10k
C502(NL) 3.3/25V
C552(NL) 3.3/25V
R503 1k
R553 1k
C507(NL) 3.3/25V
C557(NL) 3.3/25V
R508 1k
R558 1k
C501 0.001
R501 47k
R551 47k
R502 560k
R552 560k
R504 820
R554 820
C504 100/10V
C554 100 10V
R505 560k
R555 560k
R506 47k
R556 47k
C505 0.0056
C555 0.0056
C506 0.0015
C556 0.0015
R507 100k
R557 100k
C508 47/25V
C509 47/25V
R601 6.8k
R651 68k
R602 2.2k
R652 2.2k
R603 100k
R653 100k
C601 0.012
C651 0.012
C603 4.7/25V
C653 4.7/25V
R604 1k
R654 1k
C602 220p
C652 220p
R605 56k
R655 56k
C604 4p
C654 4p
R606 0.33(2W)
R656 0.33(2W)
R607 3.3k
R657 3.3k
R610 12k
R660 12k
C606 22/16V
C656 22/16V
C609 47/35V
C659 47/35V
C605 47/16V
R608 1k
R658 1k
R609 56k
R659 56k
R613 1k
R663 2.4k
C615 100/35V
R620 100(1/2W)
C613 100p
C663 100p
R616 240k
R666 240k
C614 0.033
C664 0.033
R615 18k
R665 18k
R618 6.8k
R668 6.8k
C612 0.0033
C662 0.0033
R617 820
R667 820
C610 0.22/16V
C660 0.22/16V
R614 2.2k
R664 2.2k
C611 0.022
C661 0.022
R612 4.7(1/2W)
R662 4.7(1/2W)
C607 0.056
C657 0.056
R611 4.7(1/2W)
R661 4.7 (1/2W)
R669 330 (1/2W)
R619 330 (1/2W)
C607 0.1
C608 0.1
C657 0.1
C658 0.1
C701 10 25V
C751 10 25V
R701 22k
R751 22k
R703 10k
R753 10k
R702 330
R752 330
C704 47 10V
R706 33k
R756 33k
R704 4.7k
R754 4.7k
R707 3.3k
R757 3.3k
C703 330p
C753 330p
C702 10/25V
C752 10/25V
R705 22k
R755 22k
R709 680
R801 10(1/2W)
C802 0.01
D802
C803 470/16V
R803 2.2k(1/2W)
R804 22k
C805 10000 35V
R807 1k (2W)
C807 100/35V
R805 2.2k(1/2W)
R806 22k
C806 10000 35V
R802 1k (2W)
C808 100/35V
D801
0V
-1.5V
-29.5V
28V
29.5V
15V
-17V
9.4V
2.8V
7.7V
0.7V
0.4V
9.3V
9.5V
15.5V
29V
-17.2V


D
E
F
G
H
I
1
2
3
4
5
IC601 STK460
POWER AMP
[POWER AMP IC BOARD]
IC601(1/2)
IC601(2/2)
J601 HEADPHONES
TM601 SPEAKER A
TM602 SPEAKER B
S7-1 SPEAKERS A
ON OFF
S7-2 SPEAKERS B
ON OFF
BASS
TREBLE
AEP MODEL
US MODEL
UK MODEL
E MODEL
[METER BOARD(L)]
IC701 LB1405
LEVL METER
POWER LEVEL L
LED701
LED702
D701
1S1555
POWER LEVEL R
LED751
LED752
D751
1S1555
IC751 LB1405
LEVEL METER
[METER BOARD(R)]
D802 RA-1Z
RECT
Q801 2SC1815
RIPPLE FILTER
Q802 2SA1015
RIPPLE FILTER
D801 S2VB20
RECT
[FUNCTION SWITCH BOARD]
D902–904
SLP144B
TAPE
PHONO
OFF
TUNER
D904
D903
D902
(A)
(B)
(C)
[LED BOARD]
[CB BOARD]
PT801 POWER
S8 POWER
ON OFF
AC OUTLET
CNJ1
CNP1 AC IN
CB801 2A
US MODEL
CB802 1A
AEP MODEL
VS801 VOLTAGE SELECTOR
120V
220V
240V
E MODEL
UK MODEL
CNJ1
CNJ2
CNJ3

- All capacitors are in μF unless otherwise noted. pF : μμF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ : 1000 Ω; MΩ : 1000 kΩ
- -▭- : nonflammable resistor.
- (LN) : low-noise capacitor.
- △ : internal component.
- ——— : B+ bus.
- - - - : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no-signal conditions with a VOM (20 kΩ/V).
- ➡ : signal path
- Switch

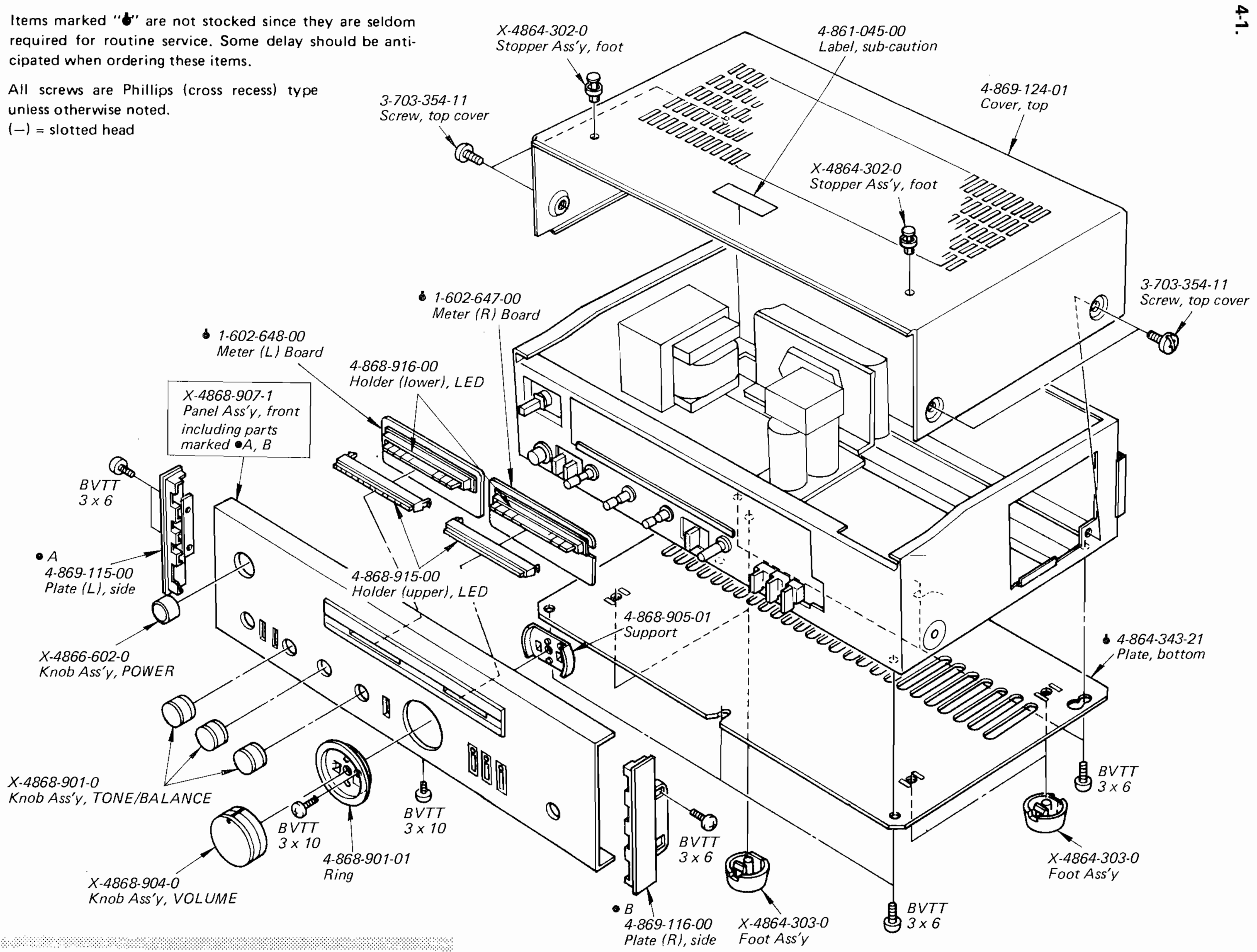
Ref. No.	Switch	Position
S1	FUNCTION	PHONO
S6	LOUDNESS	OFF
S7	SPEAKERS	A
S8	POWER	OFF

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 4
EXPLODED VIEWS

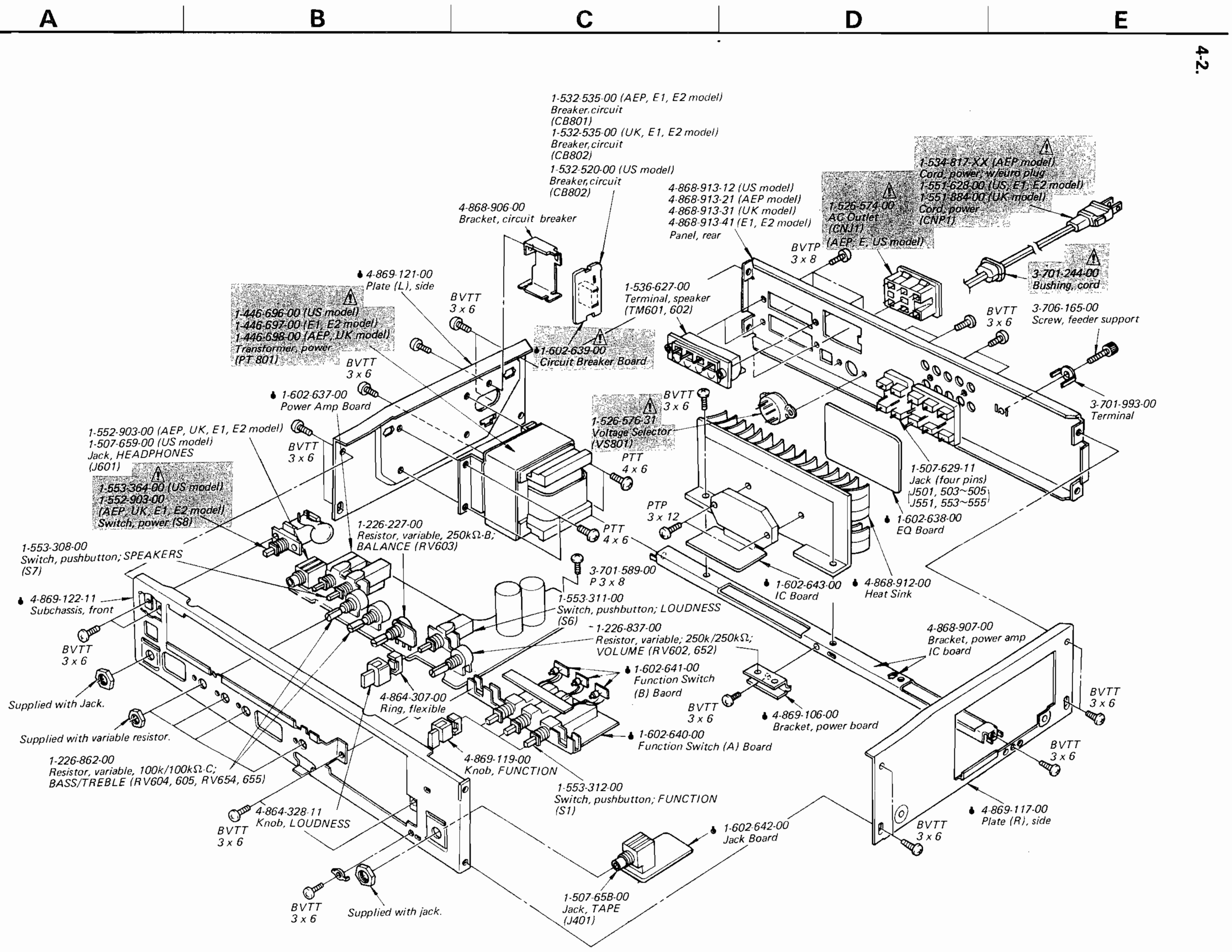
4-1.

- Items marked "♠" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head


A
B
C
D
E
1
2
3
X-4864-302-0
Stopper Ass'y, foot
4-861-045-00
Label, sub-caution
3-703-354-11
Screw, top cover
4-869-124-01
Cover, top
X-4864-302-0
Stopper Ass'y, foot
3-703-354-11
Screw, top cover
♠ 1-602-647-00
Meter (R) Board
♠ 1-602-648-00
Meter (L) Board
4-868-916-00
Holder (lower), LED
X-4868-907-1
Panel Ass'y, front
including parts
marked ●A, B
BVTT
3 x 6
● A
4-869-115-00
Plate (L), side
4-868-915-00
Holder (upper), LED
4-868-905-01
Support
♠ 4-864-343-21
Plate, bottom
X-4866-602-0
Knob Ass'y, POWER
X-4868-901-0
Knob Ass'y, TONE/BALANCE
BVTT
3 x 10
BVTT
3 x 10
4-868-901-01
Ring
BVTT
3 x 6
BVTT
3 x 6
X-4864-303-0
Foot Ass'y
X-4868-904-0
Knob Ass'y, VOLUME
● B
4-869-116-00
Plate (R), side
X-4864-303-0
Foot Ass'y
BVTT
3 x 6

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

4-2.


A
B
C
D
E
1
2
3
1-532-535-00 (AEP, E1, E2 model)
Breaker, circuit
(CB801)
1-532-535-00 (UK, E1, E2 model)
Breaker, circuit
(CB802)
1-532-520-00 (US model)
Breaker, circuit
(CB802)
4-868-906-00
Bracket, circuit breaker
4-868-913-12 (US model)
4-868-913-21 (AEP model)
4-868-913-31 (UK model)
4-868-913-41 (E1, E2 model)
Panel, rear
⚠
1-526-574-00
AC Outlet
(CNJ1)
(AEP, E, US model)
⚠
1-534-817-XX (AEP model)
Cord, power, w/euro plug
1-551-628-00 (US, E1, E2 model)
1-551-884-00 (UK model)
Cord, power
(CNP1)
BVTP
3 x 8
⚠
3-701-244-00
Bushing, cord
♠ 4-869-121-00
Plate (L), side
BVTT
3 x 6
1-536-627-00
Terminal, speaker
(TM601, 602)
BVTT
3 x 6
3-706-165-00
Screw, feeder support
⚠
1-446-696-00 (US model)
1-446-697-00 (E1, E2 model)
1-446-698-00 (AEP, UK model)
Transformer, power
(PT 801)
BVTT
3 x 6
⚠
♠ 1-602-639-00
Circuit Breaker Board
♠ 1-602-637-00
Power Amp Board
BVTT
3 x 6
⚠
1-526-576-31
Voltage Selector
(VS801)
3-701-993-00
Terminal
1-552-903-00 (AEP, UK, E1, E2 model)
1-507-659-00 (US model)
Jack, HEADPHONES
(J601)
BVTT
3 x 6
PTT
4 x 6
1-507-629-11
Jack (four pins)
J501, 503~505
J551, 553~555
⚠
1-553-364-00 (US model)
1-552-903-00
(AEP, UK, E1, E2 model)
Switch, power (S8)
1-226-227-00
Resistor, variable, 250kΩ-B;
BALANCE (RV603)
PTP
3 x 12
PTT
4 x 6
♠ 1-602-638-00
EQ Board
1-553-308-00
Switch, pushbutton; SPEAKERS
(S7)
3-701-589-00
P 3 x 8
♠ 1-602-643-00
IC Board
♠ 4-868-912-00
Heat Sink
♠ 4-869-122-11
Subchassis, front
1-553-311-00
Switch, pushbutton; LOUDNESS
(S6)
1-226-837-00
Resistor, variable; 250k/250kΩ;
VOLUME (RV602, 652)
4-868-907-00
Bracket, power amp
IC board
BVTT
3 x 6
♠ 1-602-641-00
Function Switch
(B) Baord
BVTT
3 x 6
Supplied with Jack.
4-864-307-00
Ring, flexible
BVTT
3 x 6
♠ 4-869-106-00
Bracket, power board
♠ 1-602-640-00
Function Switch (A) Board
Supplied with variable resistor.
BVTT
3 x 6
1-226-862-00
Resistor, variable, 100k/100kΩ-C;
BASS/TREBLE (RV604, 605, RV654, 655)
4-869-119-00
Knob, FUNCTION
1-553-312-00
Switch, pushbutton; FUNCTION
(S1)
4-864-328-11
Knob, LOUDNESS
BVTT
3 x 6
♠ 1-602-642-00
Jack Board
BVTT
3 x 6
♠ 4-869-117-00
Plate (R), side
BVTT
3 x 6
Supplied with jack.
1-507-65B-00
Jack, TAPE
(J401)

Ref. N

⇒ Q801
⇒ Q802

⇒ IC501
IC601
IC701,

D701, 7
D801
⇒ D802
D902~

C801

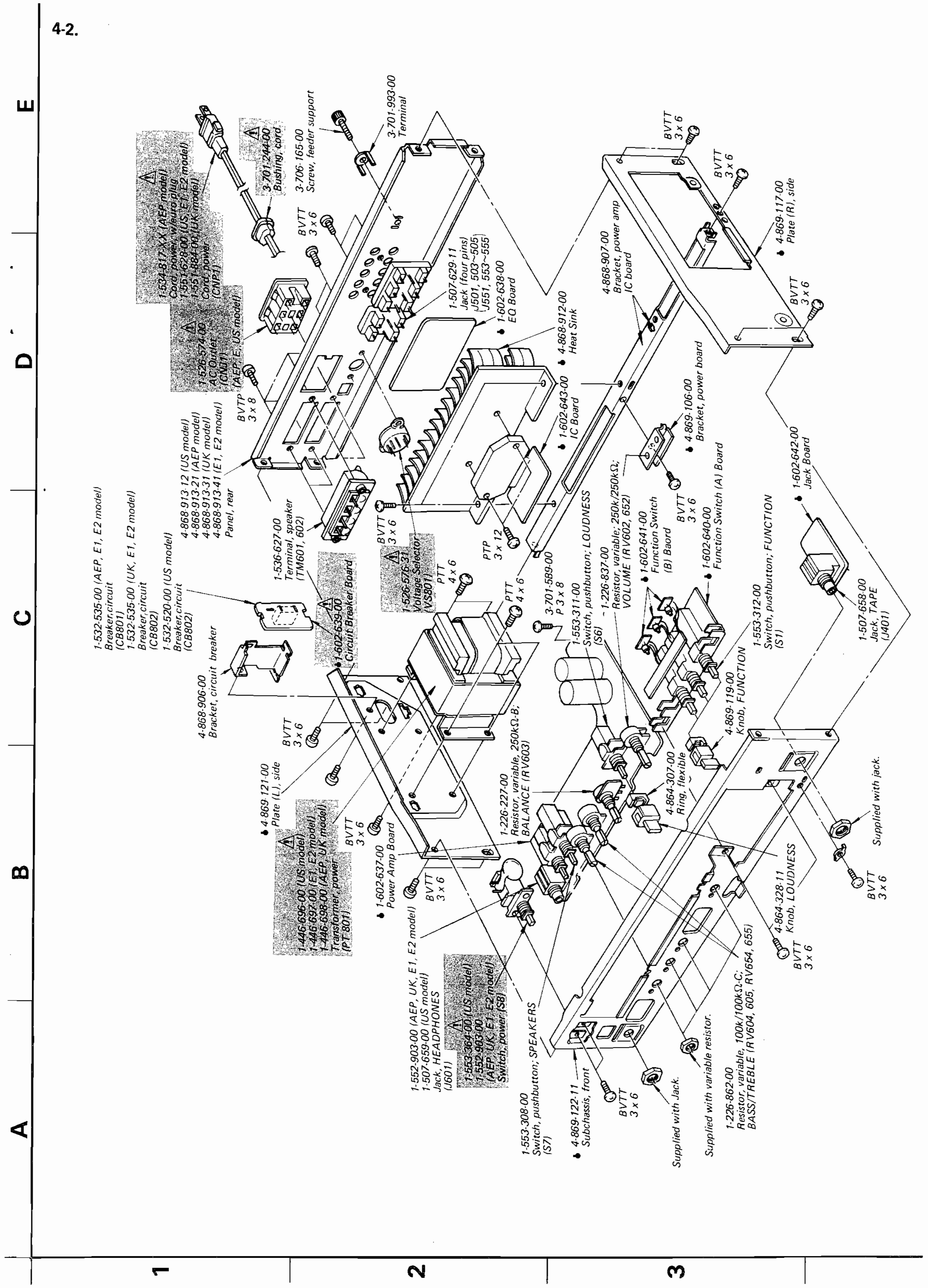
C804

C805, 8

R606
R611, 6
R619
R620
R656

- Iter
  requ
  cipa
- ⇒:

4-2.


E
D
C
B
A
1
2
3
⚠ 1-534-612-XX (AEP model) Cord, power (with plug) 1-551-628-00 (US, E1, E2 model) 1-551-884-00 (UK model) Cord, power (CNP1)
⚠ 3-701-244-00 Bushing, cord
3-706-165-00 Screw, feeder support
3-701-993-00 Terminal
BVTT 3 x 6
⚠ 1-526-574-00 AC Outlet (CN01) (AEP, E, US model)
BVTP 3 x 8
1-507-629-11 Jack (four pins) J501, 503~505, J551, 553~555
1-602-638-00 EQ Board
4-868-912-00 Heat Sink
4-868-907-00 Bracket, power amp IC board
4-869-117-00 Plate (R), side
4-868-913-12 (US model) 4-868-913-21 (AEP model) 4-868-913-31 (UK model) 4-868-913-41 (E1, E2 model) Panel, rear
1-602-643-00 IC Board
4-869-106-00 Bracket, power board
1-602-642-00 Jack Board
1-532-535-00 (AEP, E1, E2 model) Breaker, circuit (CB801) 1-532-535-00 (UK, E1, E2 model) Breaker, circuit (CB802) 1-532-520-00 (US model) Breaker, circuit (CB802)
4-868-906-00 Bracket, circuit breaker
1-536-627-00 Terminal, speaker (TM601, 602)
⚠ 1-602-639-00 Circuit Breaker Board
⚠ 1-526-576-31 Voltage Selector (VS801)
PTT 4 x 6
PTP 3 x 12
3-701-589-00 P 3 x 8
1-553-311-00 Switch, pushbutton; LOUDNESS (S6)
1-226-837-00 Resistor, variable; 250k/250kΩ; VOLUME (RV602, 652)
1-602-641-00 Function Switch (B) Baord
1-602-640-00 Function Switch (A) Board
1-553-312-00 Switch, pushbutton; FUNCTION (S1)
1-507-658-00 Jack, TAPE (J401)
4-869-121-00 Plate (L), side
⚠ 1-446-696-00 (US model) 1-446-697-00 (E1, E2 model) 1-446-698-00 (AEP, UK model) Transformer, power (PT-801)
1-602-637-00 Power Amp Board
1-226-227-00 Resistor, variable, 250kΩ-B; BALANCE (RV603)
4-864-307-00 Ring, flexible
4-869-119-00 Knob, FUNCTION
Supplied with jack.
1-552-903-00 (AEP, UK, E1, E2 model) 1-507-659-00 (US model) Jack, HEADPHONES (J601)
⚠ 1-553-384-00 (US model) 1-553-383-00 (AEP, UK, E1, E2 model) Switch, power (S8)
Switch, pushbutton; SPEAKERS
1-553-308-00 Switch, pushbutton; SPEAKERS (S7)
4-869-122-11 Subchassis, front
Supplied with Jack.
Supplied with variable resistor.
1-226-862-00 Resistor, variable, 100k/100kΩ-C; BASS/TREBLE (RV604, 605, RV654, 655)
4-864-328-11 Knob, LOUDNESS
BVTT 3 x 6

SECTION 5
ELECTRICAL PARTS LIST

SEMICONDUCTORS

Transistors

Ref. No.	*Part No.*	*Description*
⇒ Q801	8-729-663-47	2SC1364
⇒ Q802	8-729-201-52	2SA1027R

ICs

Ref. No.	*Part No.*	*Description*
⇒ IC501	8-759-745-61	NJM-4560D-D
IC601	8-759-846-30	STK460
IC701, 751	8-759-814-05	LB1405

Diodes

Ref. No.	*Part No.*	*Description*
D701, 751	8-719-815-55	1S1555
D801	⚠8-719-504-40	S2VB20
⇒ D802	⚠8-719-200-02	10E2
D902~904	8-719-901-44	SLP144B

CAPACITORS

All capacitors are in μF. 50WV or less are not indicated except for electrolytics and tantalums. Common capacitors are omitted. Refer to the lists on pages 18 and 19 for their part numbers.

Ref. No.	*Part No.*		*Description*
C801	⚠1-102-355-00	0.01	500V ceramic
C804	⚠1-161-749-00	0.01	125V ceramic, semiconductor (US model)
	⚠1-161-744-00	0.01	400V ceramic, semiconductor (AEP, UK, E1, E2 model)
C805, 806	⚠1-125-157-00	10,000	35V electrolytic

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on the last page for their part numbers. kΩ: 1000Ω, MΩ: 1000kΩ

Ref. No.	*Part No.*			*Description*
R606	1-207-615-00	0.33	2W	metal plate
R611, 612	⚠1-247-188-00	4.7	½W	carbon
R619	⚠1-247-228-51	330	½W	carbon
R620	⚠1-247-216-00	100	½W	carbon
R656	1-207-615-00	0.33	2W	metal plate
R661, 662	⚠1-247-188-00	4.7	½W	carbon
R669	⚠1-247-228-51	330	½W	carbon
R801	⚠1-247-192-00	10	½W	carbon
R802	⚠1-206-664-00	1k	2W	metal oxide
R803, 805	⚠1-247-248-00	4.7k	½W	carbon
R807	⚠1-206-664-00	1k	2W	metal oxide
RV602	1-226-837-00	250k/250k-B, variable; VOLUME		
RV603	1-226-227-00	250k-B, variable; BALANCE		
RV604, 605	1-226-862-00	100k/100k-C, variable; BASS/TREBLE		
RV652	1-226-837-00	250k/250k, variable; VOLUME		
RV654, 655	1-226-862-00	100k/100k, variable; BASS/TREBLE		

- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- ⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

MISCELLANEOUS

[redacted]

Ref. No.	*Part No.*	*Description*
J401	1-507-658-00	Jack, TAPE
J501, 551 J503, 553 J505, 555	1-507-629-11	Jack (four pins)
J601	1-507-659-00	Jack, HEADPHONES
♦ L601, 651	1-420-872-00	Coil
LED 701, 702 751, 752	1-806-013-21	LED Block
PT801	⚠1-446-696-00	Transformer, power (US model)
	⚠1-446-697-00	Transformer, power (E1, E2 model)
	⚠1-446-698-00	Transformer, power (AEP, UK model)

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	*Part No.*	*Description*
TM601, 602	1-536-627-00	Terminal, speaker
S1	1-553-312-00	Switch, pushbutton; FUNCTION
S6	1-553-311-00	Switch, pushbutton; LOUDNESS
S7	1-553-308-00	Switch, pushbutton; SPEAKERS
S8	⚠1-553-364-00	Switch, power (US model)
	⚠1-552-903-00	Switch, power (AEP, UK, E1, E2 model)
VS801	⚠1-526-576-31	Voltage Selector (E1, E2 model)
	⚠1-526-565-00	Adaptor, AC plug (E1, E2 model)
	♠ 1-508-821-00	Base Post (17mm)
	♠ 1-535-115-00	Terminal, 2P
	♠ 1-535-117-00	Terminal, 4P
	♠ 1-535-121-00	Terminal, 8P
	♠ 1-535-135-00	Base Post (14mm)
	♠ 1-535-149-11	Lead, jumper

COMPLETE CIRCUIT BOARD

	♠ A-4388-228-A	Power

PRINTED CIRCUIT BOARDS

	♠ 1-602-637-00	Power Amp
	♠ 1-602-638-00	EQ
♠	⚠1-602-639-00	Circuit Breaker
	♠ 1-602-640-00	Function Switch (A)
	♠ 1-602-641-00	Function Switch (B)
	♠ 1-602-642-00	Jack
	♠ 1-602-643-00	Power Amp IC
	♠ 1-602-644-00	Support
	♠ 1-602-647-00	Meter (R)
	♠ 1-602-648-00	Meter (L)

- Items marked "♠" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No. *Part No.* *Description*

ACCESSORIES & PACKING MATERIALS

Part No.	*Description*
3-701-630-00	Bag, plastic
3-703-082-21	Label, sub-caution
3-703-114-01	Label, main-catuion
3-783-222-11	Manual, instruction (AEP, UK, E1, E2 model)
3-783-222-21	Manual, instruction (US model)
4-864-354-00	Sheet, plastic
4-868-923-01	Carton
4-868-927-01	Cushion (A)
4-868-928-01	Cushion (B)

ELECTROLYTIC CAPACITORS

RATING →: Use the high voltage rated one.

CAP. (μF)	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-419-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000		1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	–
3300	1-121-661-00	1-123-075-00	1-123-071-00	–	–	–

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	–	–	–	–
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	–	1-123-028-00
3.3	1-121-995-00	–	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	–	–
47	1-123-251-00	1-121-919-00		–
100	1-123-084-00	–	–	–

CERAMIC CAPACITORS

RATING

CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

0.001μF = 1,000pF

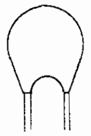
CERAMIC (SEMICONDUCTOR) CAPACITORS

RATING →: Use the high voltage rated one.

CAP. (μF)	25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

MYLAR CAPACITORS

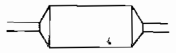
	RATING										
CAP. (µF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (µF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (µF)	50 VOLT.	100 VOLT.	200 VOLT.
	PART No.	PART No.	PART No.		PART No.	PART No.	PART No.		PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	–	–
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	–	–
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	–	–
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	–	–
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

	RATING			→ : Use the high voltage rated one.			
CAP. (µF)	3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.01					→	→	1-131-396-00
0.015						→	1-131-397-00
0.022						→	1-131-398-00
0.033						→	1-131-399-00
0.047						→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	–	–	–	–	1-131-412-00	→	1-131-406-00
0.68	–	–	–	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	–	–	1-131-418-00	–	1-131-413-00	→	1-131-408-00
1.5	–	1-131-421-00	–	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	–	1-131-419-00	–	1-131-414-00	1-131-355-00	1-131-349-00
3.3	–	1-131-422-00	–	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	–	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	–	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	–
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	–			
68	1-131-394-00	1-131-388-00	–	–			
100	1-131-395-00	–	–	–			

TANTALUM CAPACITORS



	RATING					
CAP. (µF)	3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			–	–	1-131-262-00	1-131-278-00
0.33			–	–	1-131-263-00	1-131-279-00
0.47			1-131-169-00	–	1-131-264-00	1-131-280-00
0.68			–	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	–	1-131-266-00	1-131-282-00
1.5		1-131-250-00	–	–	1-131-267-00	1-131-283-00
2.2		–	–	1-131-259-00	1-131-268-00	1-131-284-00
3.3		–	1-131-255-00	–	1-131-269-00	–
4.7		1-131-251-00	1-131-171-00	–	1-131-270-00	–
6.8		–	–	1-131-260-00	1-131-271-00	–
10	–		1-131-256-00		1-131-272-00	–
15	–	1-131-252-00	–	1-131-261-00		
22		–	1-131-257-00	–		
33	1-131-176-00	1-131-253-00	1-131-173-00	–		
47	1-131-288-00	1-131-174-00	–	–		
100	1-131-177-00					

1/4 WATT CARBON RESISTORS

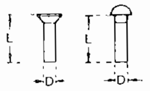
Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

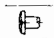
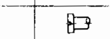
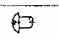
HARDWARE NOMENCLATURE

Screw:

– P 3 x 10
- *L: Length in mm*
- *D: Diameter in mm*
- *Type of head*
- *Indicated slotted-head only.*

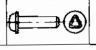
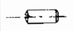
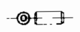
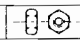
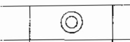
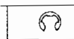
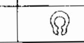
Unless otherwise indicated, it means cross-recessed head (Phillips type).



Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Nut, Washer, Retaining ring:

N 3
- *Diameter of usable screw or shaft*
- *Reference designation*

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

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